

Concept for Integrated Automotive System for the Detection and Location of Unauthorized Monitoring Equipment

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Introduction

With tracking/eavesdropping devices more compact and more ubiquitous than ever, privacy-minded individuals lack a mechanism for detecting and locating unauthorized tracking devices, be they emplaced by the government or a stalker.

Abstract

By embedding radio detectors in multiple parts of an automobile and through the relatively temporal triangulation (relative arrival time analysis) of signals, unauthorized signals can be detected and pinpointed to enable the owner of an automobile to remove the unauthorized spy device. This would have commercial value as an optional feature in new automobiles capable of detecting, for example "AirTags," or other similar transmitters.

Such a system would look for transmitters of any type operating on any frequency and would use atomic timing in order to determine whether a signal's source was outside of the wheelbase of the automobile or emanating from within. With integrated sensors and atomic timing, differentiating signals coming from inside of the wheelbase from those from without would be a simple matter.

Conclusion

As this concept has not yet been protected, much less advertised as a feature of any automobile, the development of the concept should be promoted in order to mitigate the threat posed by both governmental and private violations of privacy.